

# Coronary Heart Disease

## Disease Information Packets – Slide Sets



Public Health Services,  
Community Health Statistics

12/2012

# What is Coronary Heart Disease?

- Coronary heart disease (CHD) is the most common heart condition under the broad description of *heart disease* in the United States.
- Caused by *atherosclerosis* – narrowing of the small blood vessels that supply blood and oxygen to the heart due to plaque (fatty deposits).
  - Impaired blood flow can cause death of the heart muscle from lack of oxygen.
- CHD can also cause:
  - Heart Attack
  - Heart Arrhythmia (irregular heartbeat)
  - Heart Failure
  - Sudden Cardiac Death



Source: Centers for Disease Control and Prevention, Division for Heart Disease and Stroke Prevention (DHDSP), "Heart Disease Facts and Statistics", <http://www.cdc.gov/heartdisease/statistics.htm>.

# Demographic Risk Factors

- Age
  - About 82% of people who die from CHD are 65 or older.
- Gender
  - Men are more likely than women to have CHD.
- Heredity/Genetic factors
  - Risk of CHD increases 2-3 times if a close relative has the disease.
- Race/ethnicity
  - Blacks and Hispanics are at a higher risk for developing CHD than whites.
- Socio-economic Status
  - Those of low socioeconomic status are at a higher risk for developing CHD than those of high socioeconomic status.

Sources: American Heart Association. My Heart and Stroke News. Coronary Artery Disease. The ABCs of CAD. February 2012. - Scheuner MT, Whitworth WC, McGruder H, Yoon PW, Khoury MJ. Familial risk assessment for early-onset coronary heart disease. *Genet Med* 2006;8(8):525-531.

# Behavioral and Social Risk Factors

- High blood pressure
  - B.P.  $\geq$  140 mmHg/90 mmHg increases the risk of CHD.
- High blood cholesterol
  - About 1 of every 3 adult Americans has high blood cholesterol.
- Diabetes Mellitus
  - At least 3 out of 4 people with diabetes die from heart or blood vessel disease.

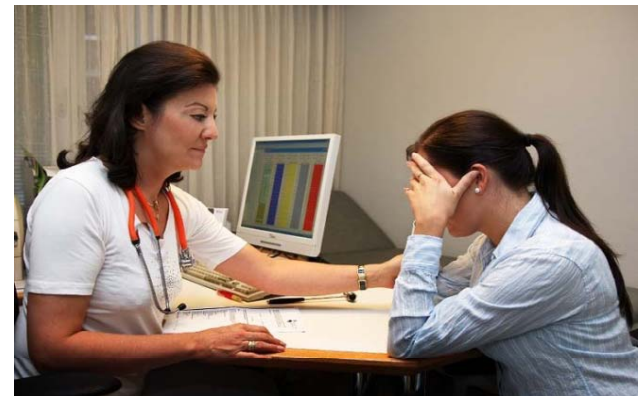


Sources: American Heart Association. My Heart and Stroke News. Coronary Artery Disease-The ABCs of CAD. February 2012.

Schober SE, Carroll MD, Lacher DA, Hirsch R. High serum total cholesterol—an indicator for monitoring cholesterol lowering efforts; U.S. adults, 2005–2006. NCHS data brief no 2, Hyattsville, MD: National Center for Health Statistics. 2007.

# Behavioral and Social Risk Factors

- Sedentary lifestyle / Obesity
  - Obesity is a major risk factor for CHD.
  - About 75 million adults are obese.
- Tobacco use
  - Smoking cigarettes contributes to the development of atherosclerosis.
  - The risks of CHD and sudden cardiac death are higher among smokers than non-smokers.
- Poor nutrition
- Poor medical care
- Stress, depression





# Intermediate Outcomes

- Stroke
  - A diseased heart increases the risk of stroke.
- Angina pectoris
  - Causes chest pain or discomfort from reduced blood supply to the heart.
- High blood pressure
- High cholesterol
- Diabetes



# National Statistics

- 49.7% of U.S. adults aged  $\geq 20$  years (an estimated 107.3 million persons) have at least one of the three leading risk factors for CHD. (Valderrama, 2011)
- Coronary heart disease caused 1 of every 6 deaths in the United States in 2008. (AHA)
- In 2007, one-quarter of all deaths (616,000) were from diseases of the heart. (Xu, 2010)

Sources: - American Heart Association. Circulation. Executive Summary: Heart Disease and Stroke Statistics—2012. 2012; 125: 188-197. - Xu JQ, Kochanek KD, Murphy SL, Tejada-Vera B. Deaths: Final data for 2007. National vital statistics reports; vol 58 no 19. Hyattsville, MD: NCHS; 2010 - Valderrama L, Amy, et al. Million Hearts: Strategies to Reduce the Prevalence of Leading Cardiovascular Disease Risk Factors --- United States, 2011. MMWR. 2011; 60(36);1248-1251

# National Disparities

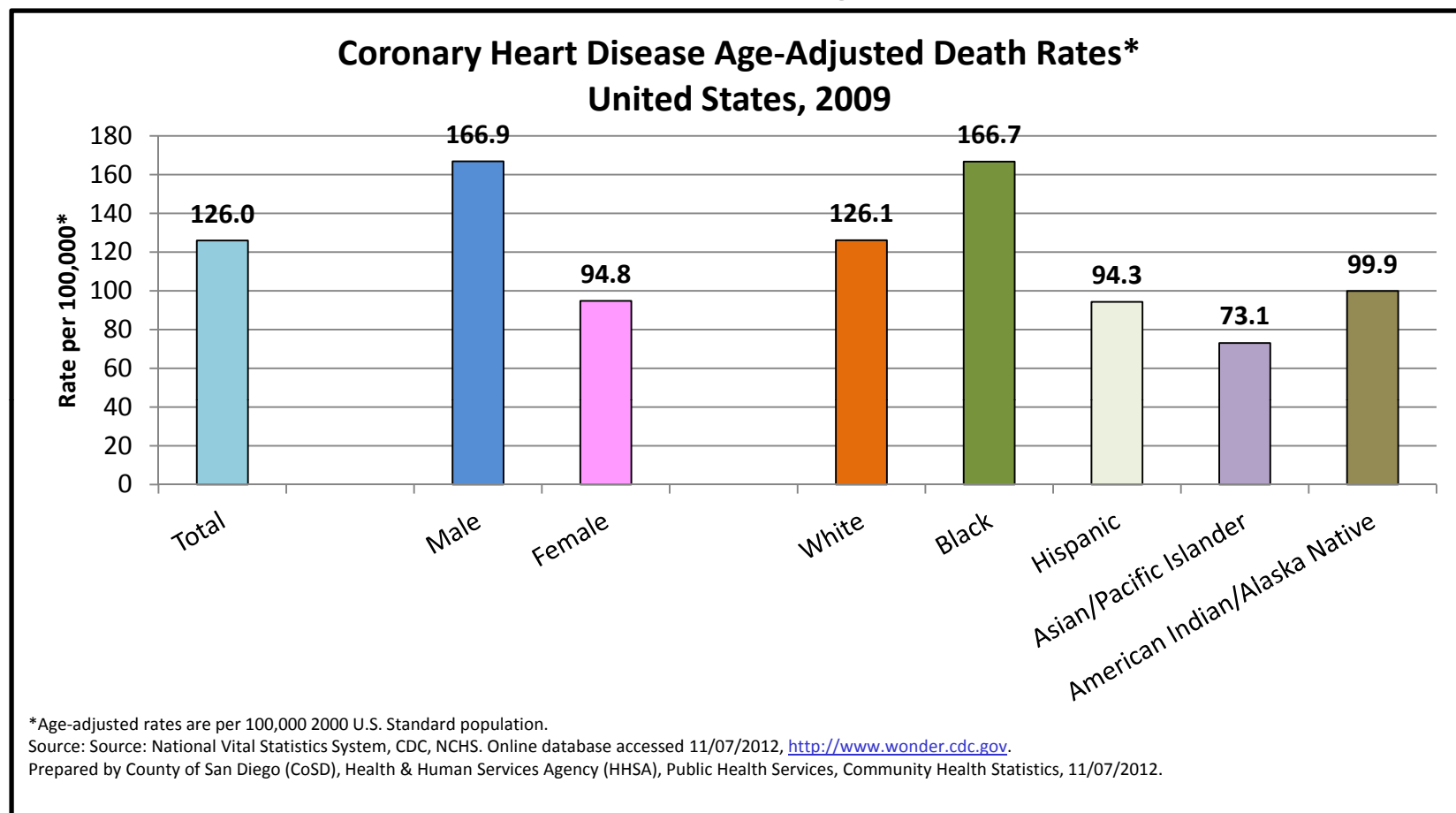
- In the United States, the rate of death due to heart disease in 2006 was highest in Mississippi and lowest in Minnesota.

## **Top 5 States with Highest Heart Disease Death Rates, United States, 2000-2006**

1. Mississippi
2. Oklahoma
3. Alabama
4. West Virginia
5. Kentucky

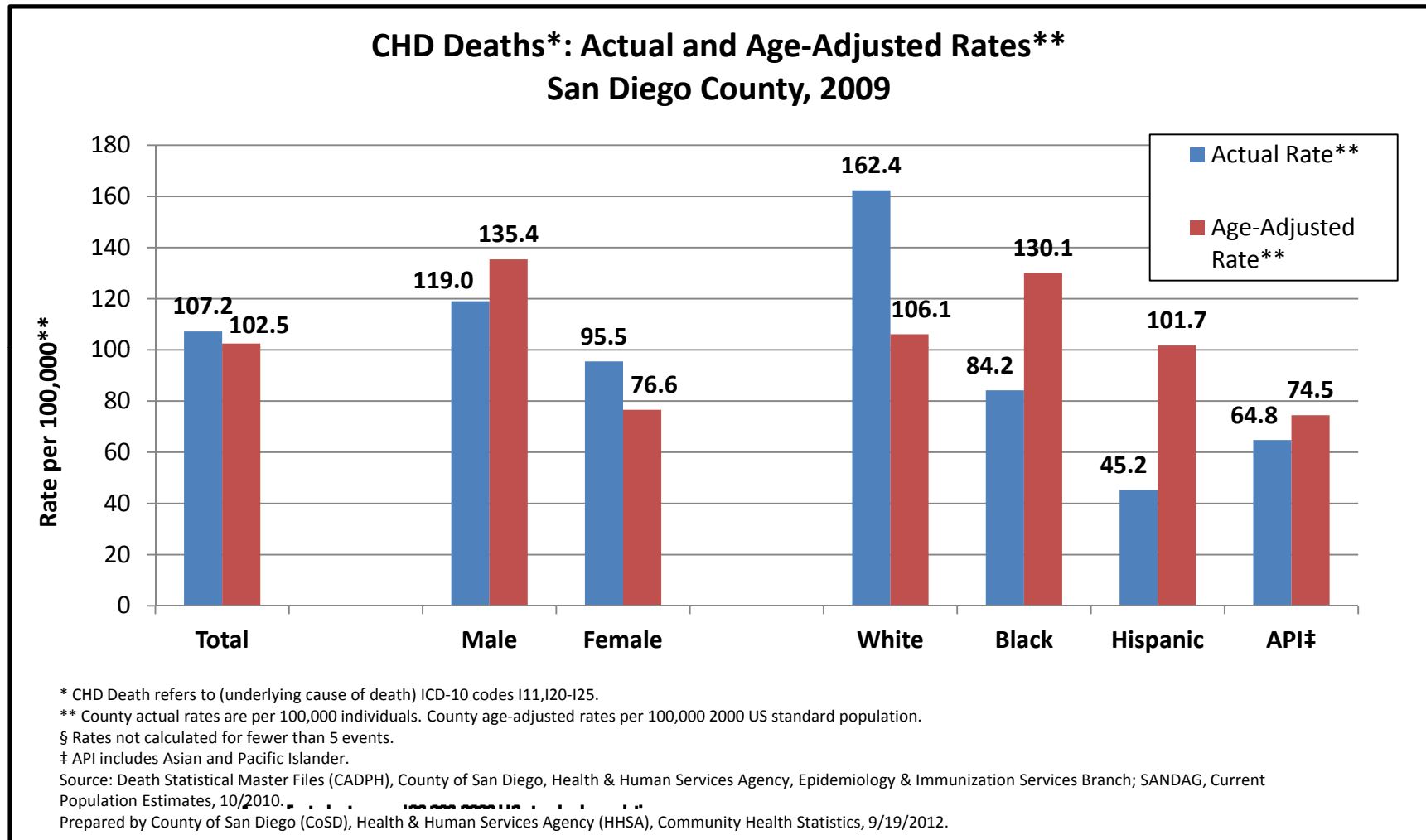


# National Disparities

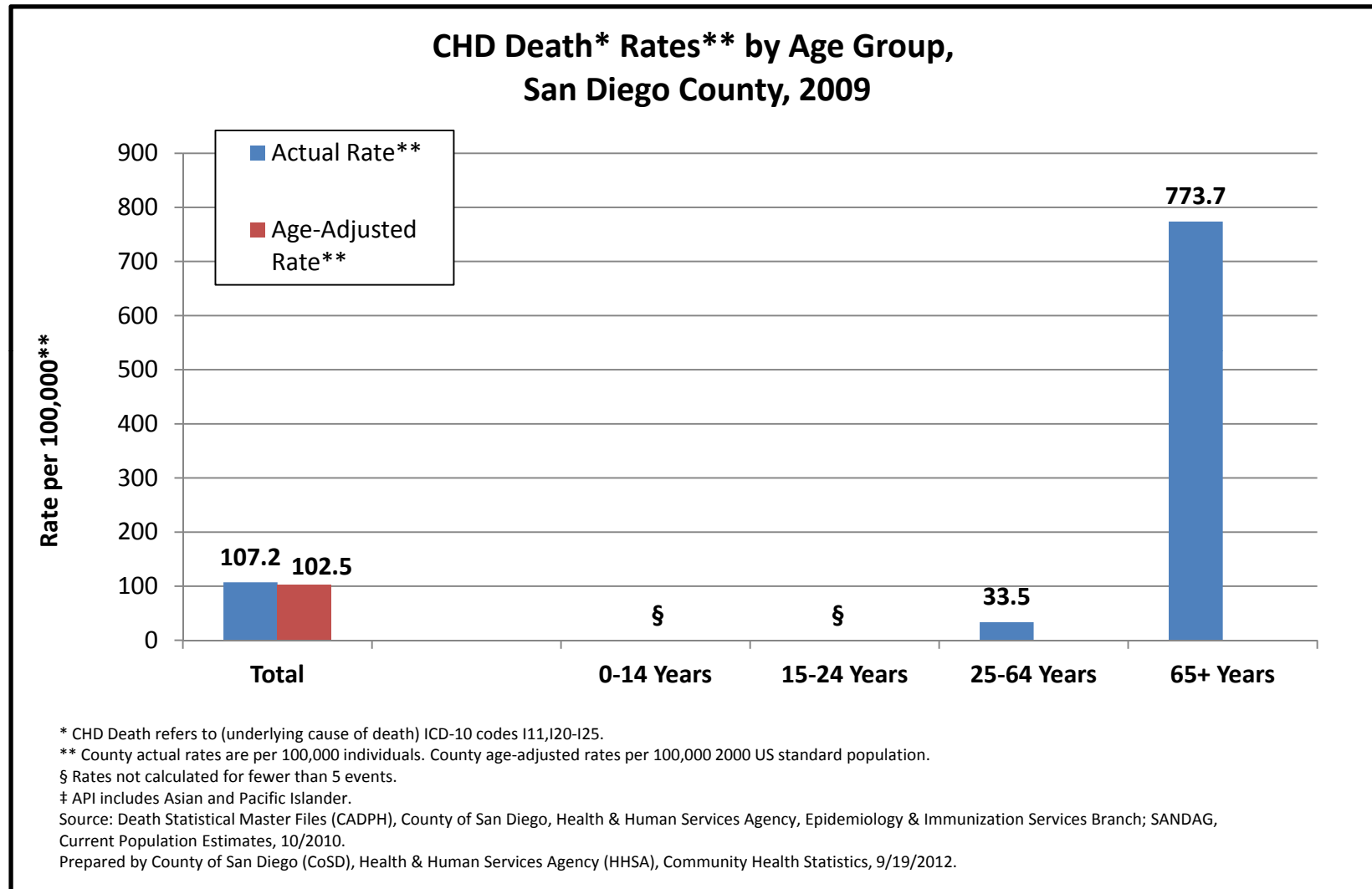


**In 2009, the age-adjusted death rate from CHD was highest for blacks, followed by whites, and higher for men than women.**

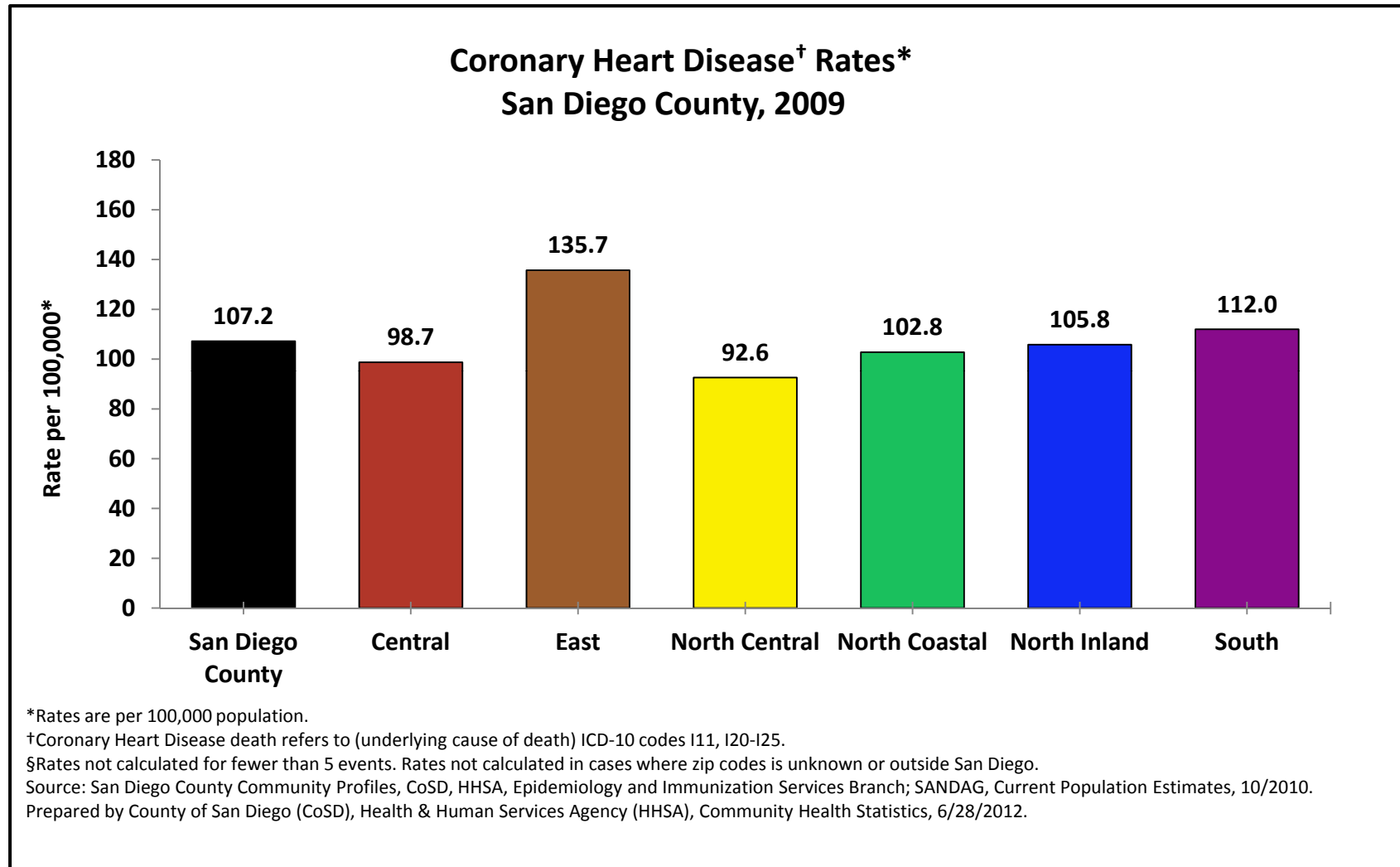
# Local Statistics and Disparities



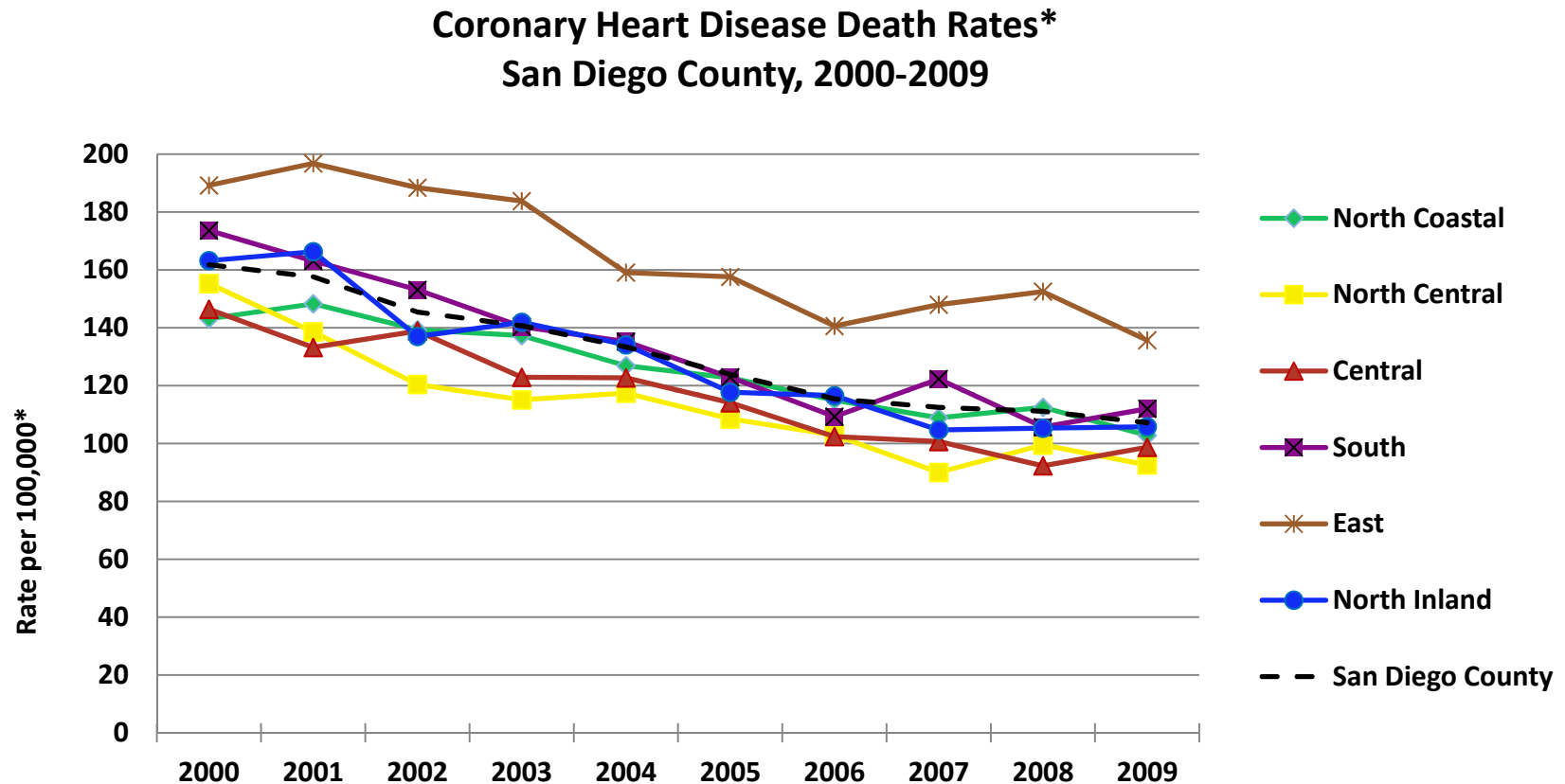
# Local Statistics and Disparities



# Local Statistics and Disparities



# Local Statistics and Disparities



\*Rates are per 100,000 population.

†Coronary Heart Disease death refers to (underlying cause of death) ICD-10 codes I11, I20-I25.

§Rates not calculated for fewer than 5 events. Rates not calculated in cases where zip codes is unknown or outside San Diego.

Source: San Diego County Community Profiles, CoSD, HHSA, Epidemiology and Immunization Services Branch; SANDAG, Current Population Estimates, 10/2010.

Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 6/28/2012.

# Disease Prevention

- Avoid smoking
- Be physically active
- Control weight
- Eat healthy foods
- Avoid excessive alcohol consumption
- See a doctor regularly to:
  - Monitor cholesterol level
  - Check blood pressure
  - Control diabetes





# Know the 5 Major Symptoms of a Heart Attack

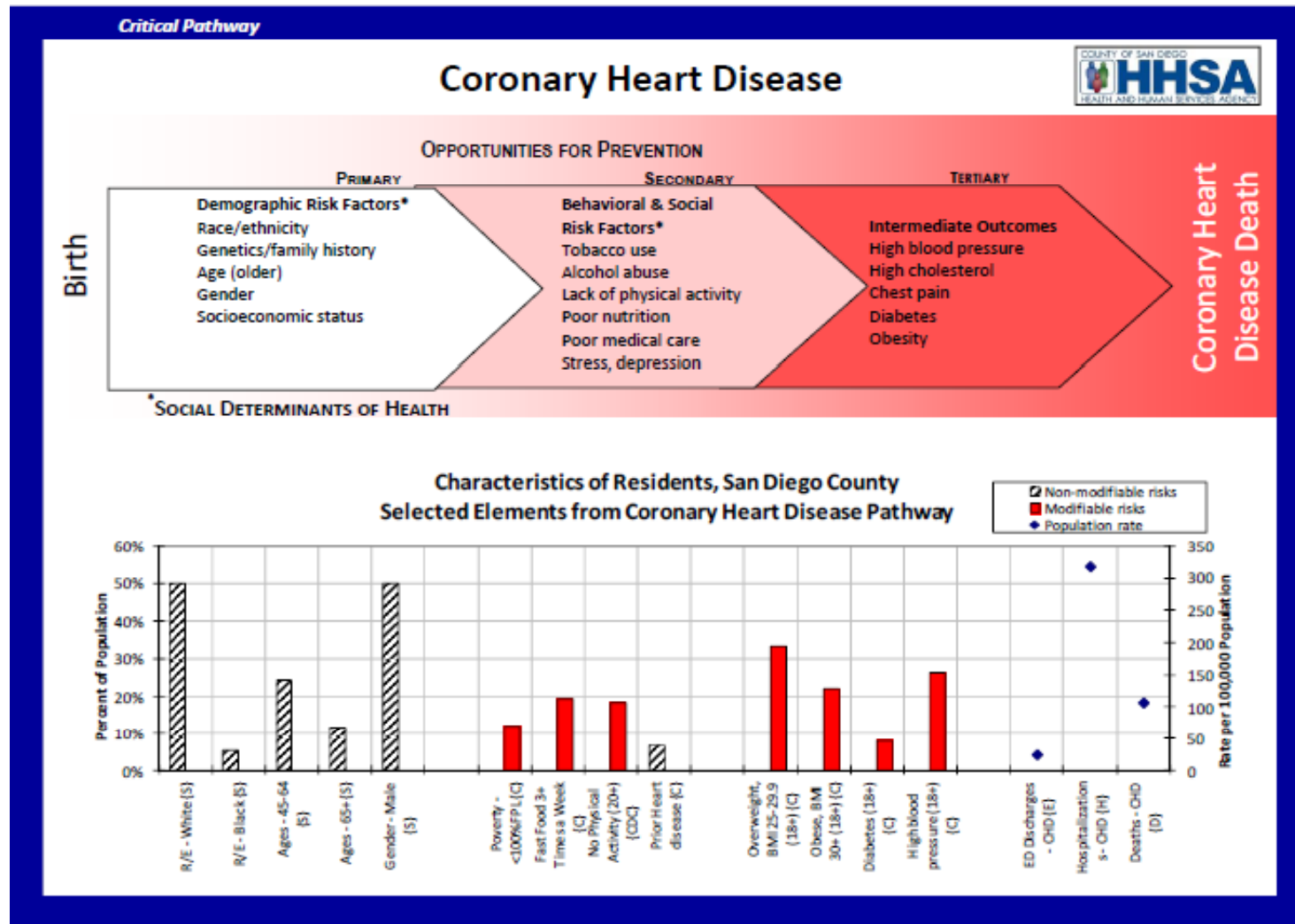
1. Pain or discomfort in the jaw, neck, or back
2. Feeling weak, light-headed, or faint
3. Chest pain or discomfort
4. Pain or discomfort in arms or shoulder
5. Shortness of breath

If you think that you or someone you know is having a heart attack, call 9–1–1 immediately.



**DIAL 9-1-1**

# Critical Pathway for Coronary Heart Disease



# Contact Us

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Community Health Statistics  
(619)285-6479

[www.SDHealthStatistics.com](http://www.SDHealthStatistics.com)